cine, Vol. II, No. 3, p. 85, a plea for more thorough examinations of the rectum for carcinoma by the general practitioner.

Dr. C. L. Gibson, Annals of Surgery, 1910, Vol. LI, p. 116, gives a special method for end-to-end Intestinal Anastomosis by the Invagination Method, in cases where other methods would be impracticable. Sigmoid Replaced by Small Intestine. Riechel, Verhand. d. Deutsch. Gesell. f. Chir., April, 1910.

Dr. Wilson, Annals of Surgery, February, 1911, p. 223, speaks of the association of diverticuli and carcinoma in the lower bowel.

DeWitt Stetten, Zeitschrift of the German Hospital, New York, 1909, published two most interesting observations on the co-existence of tuberculous ulcers and carcinoma of the large intestine.

Dr. Wyllys Andrews, Surgery, Gynecology and Obstretrics, January, 1911, p. 63, gives an interesting account of a new form of industrial accident—Pneumatic Rupture of the Intestine.

Bard, Semaine Medicale, November 30, 1910, Vol. XXX, No. 48, p. 565, recounts a case showing this rather unusual type of Hirschsprung's disease,—Idiopathic Dilatation of the Rectum.

Treatment of Painful Fissures and Piles by High Frequency Currents. A. Teirlinck, Gand, Belgium. The Proctologist, December, 1910.

PROCTOLOGY.

Symposium of papers read at the American Protologic Society, held June 26-27, 1911, in Los Angeles.

How Can an Infected Sigmoid Diverticulum Be the Cause of a Retro-Peritoneal abscess?

By DR. A. TIERLINCK, of Gand, Belgium.

In the present state of abdominal surgery the appendix is frequently regarded as the chief cause of all abdominal troubles.

Recently numerous works have been published concerning sigmoiditis and persigmoiditis. Diverticular abscesses are not as frequent as appendicular abscesses. It should be borne in mind that the sigmoid is often located in the right iliac fossa and diverticular abscesses may be mistaken for appendicular trouble.

In the young the sigmoid flexure is free and communicates with the retro-mesenteric and pre-aortic cellular tissues by the tissue of the meso-colon. Infection can be transmitted from the diverticula into the retro-peritoneal cellular tissue by three means,—the connective tissue, the lymphatic system, and the venous blood-vessels.

In adults the sigmoid is adherent to the posterior abdominal wall and in such cases there is another source of infection,—an external one; due to the numerous anastomoses between the meso-colic glands and the parietal lymphatic system and between the sigmoid blood-supply and that of the retro-peritoneal region.

Some Observations Upon the Surgical Anatomy and Mechanism of the Colon.

By GRANVILLE S. HANES, M. D., Louisville, Ky.

Until comparatively recent years diseases of the colon and sigmoid, and the surgical anatomy of each, received but scant attention. Recently, however, much valuable information upon this subject has been developed. Robert Coleman Kemp in his work on Diseases of the Stomach and Intestines says that Dr. J. M. Mathews was the first to call attention to sigmoiditis and diverticulitis of the sigmoid.

The entire length of the large bowel in situ is found to be much shorter than when it is dissected from its attachments. An ordinary thirty-inch colon tube has sufficient length to extend around the lumen of the large bowel to the cecum. While this has not been done in the living individual it has been done in the cadaver, and radiographs of the same are on record.

It is almost universally believed that ordinary flexible colon tubes can be manipulated in such a way as to traverse the entire course of the large bowel around to the cecum. It has been proven by a number of investigators that such an achievement is impossible in the normal bowel. The average length of the sigmoid is about eighteen inches, and this being a floating portion of the large gut it is almost impossible for an instrument to pass beyond the middle half of the sigmoid. Should such be possible and the tube enter the descending colon it would be a physical impossibility for it to pass either the acute angle at the splenic flexure or the hepatic flexure. The failure of instruments to pass high into the bowel has been demonstrated by X-ray pictures.

Dr. Hanes demonstrated the difficulty in passing any instrument through the hepatic and splenic flexures by introducing a thirty-inch, No. 20, French, soft rubber cather into the caput coli in an old appendicostomy case. He failed by any kind of manipulation to pass the catheter through these flexures. The tube was allowed to remain in the head of the colon for twenty-four hours with the hope that peristalsis would carry it around, but this failed. After manipulating the second time three hours later four inches of the catheter appeared through the anal opening.

He forced bismuth solution into the head of the colon till the wall of the gut was thoroughly distended and then Dr. E. Bruce made a skiograph. No regurgitation into the ileum occurred. This experiment was repeated a number of times with the results as above given. If the ileo-cecal valve allows no reflow into the ileum then exceedingly large amounts of water injected into the bowel are retained in the large gut, and not a part of the amount passed into the small bowel as is supposed by some.

In an old appendicostomy case, with the patient on the left side, coal-oil was poured into a colon tube that had been introduced three inches into the rectum. In six and a half minutes the oil was flowing out of the appendicostomy opening. The amount employed was thirty ounces. This clearly demonstrates that liquids will easily pass around the entire colon without flowing through a tube. The point is also made that coal-oil is much less irritating to the mucosa than plain water or ordinary aqueous solutions.

The capacity of the large bowel in situ was measured by temporarily closing the opening of an appendicostomy case and allowing coal-oil to flow into the rectum as long as the patient could tolerate it. At a later date the same experiment was made by allowing oil to flow into the head of the colon. About the same amount of oil was received in each case. After making the same experiments in other cases it was decided that the average large bowel had a capacity varying between fifty and sixty-four ounces.

The capacity of the rectum was ascertained by inverting the patient and placing a colpeurynter at the junction of the sigmoid and rectum, just within the sigmoid. The colpeurynter was then distended with air until no fluid could pass into the sigmoid. Coal-oil was allowed to flow into the rectum till no more could be received. It was then drawn off with a catheter and the average amount was found to be between fourteen and seventeen ounces.

He insists that the Inverted Position (Hanes) is much to be preferred by both patient and operator when any kind of illuminating instruments are to be employed in the rectum or sigmoid.

Have We an Ideal Operation for Internal Hemorrhoids?—A New Hemorrhoidal Clamp.

By A. B. COOKE, M. D., Nashville, Tennessee.

An ideal operation for internal hemorrhoids must embody the five following surgical principles and precepts:

1. Complete hemostasis.